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## **Amendment to the Claims**

## Claims 1 - 29. Canceled

- 30. (Currently amended): A method for producing an end-product comprising the steps of, a) contacting a cellulose er starch containing substrate comprising plant residues and at least one substrate-converting enzyme to produce an intermediate selected from the group of pentoses and hexoses, wherein said substrate-converting enzyme is selected from the group consisting of alpha amylases, glucoamylases, pullulanases, cellulases, and combinations thereof; and b) in the same reaction vessel contacting said intermediate with a microorganism that comprises an intermediate-converting microbial enzyme, wherein said intermediate is substantially all bioconverted by said intermediate-converting microbial enzyme to said end-product.
- 31. (Currently amended): The method according to Claim 30, wherein the cellulose of starch-containing substrate is obtained from corn or wheat plant material.
- 32. (Previously presented): The method according to Claim 30, wherein the glucoamylase is a granular starch hydrolyzing glucoamylase enzyme.
- 33. (Previously presented): The method according to Claim 32, wherein the granular starch hydrolyzing glucoamylase enzyme is derived from a strain of *Humicola* or *Rhizopus*.
- 34. (Previously presented): The method according to Claim 30, wherein the alpha amylase is derived from a bacterial source.
- 35. (Previously presented): The method according to Claim 30, wherein said intermediate-converting microbial enzyme is secreted by a microorganism in contact with said intermediate.
- 36. (Previously presented): The method according to Claim 35, wherein said microorganism is a bacterium.
- 37. (Previously presented): The method according to Claim 30, wherein said intermediate is maintained at a concentration level below that which triggers catabolite repression effects upon the conversion of said intermediate to said end-product.

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- 38. (Previously presented): The method according to Claim 30, wherein the intermediate is maintained at a concentration level below that which triggers enzymatic inhibition effects upon the conversion of said intermediate to said end-product.
- 39. (Previously presented): The method according to Claim 30, wherein the presence of said end-product does not inhibit the further production of said end-product.
- The method according to Claim 30, wherein the presence of the 40. (Currently amended): cellulose er-starch containing substrate does not inhibit the further production of said endproduct.
- 41. (Previously presented): The method of Claim 30, wherein the hexose is glucose.
- 42. (Previously presented): The method of Claim 30, wherein said end-product is selected from the group consisting of 1,3-propanediol, glycerol, succinic acid, lactic acid, 2,5-diketo-Dgluconic acid, gluconate, glucose, alcohol, and ascorbic acid intermediates.

Claims 43 - 50. (Cancelled)

- The method according to claim 30, wherein the at least one substrate-converting 51. (New): enzyme is a cellulase, the intermediate comprises glucose; and the microorganism comprising an intermediate-converting enzyme is a bacteria.
- The method according to claim 30, wherein the substrate-converting enzyme is 52, (New): provided in a cell free extract.
- The method according to claim 30, wherein the at least one substrate converting 53. (New): enzyme is a cellulase.
- The method according to claim 30, wherein the method is carried out at a pH of 54. (New): 5.0 to 9.0.
- The method according to claim 30, wherein the end-product is glycerol or 1,3,-55. (New): propanediol.

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- The method according to claim 30, wherein the end-product is an ascorbic acid 56. (New): intermediate.
- The method according to claim 30, wherein the end-product is lactic acid. 57. (New):
- The method according to claim 30, further comprising recovering the end-58. (New): product.
- The method according to claim 30, wherein the substrate is a lignocellulose 59. (New): material.
- The method according to claim 30, wherein the presence of said end-product does 60. (New): not inhibit the further production of said end-product.